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(54) Title: DOWNHOLE FLOW MEASUREMENT IN A WELL

(57) Abstract: A method for downhole flow measurement comprises installing a fibre optical distributed temperature sensor (DTS) system along at least part of the length of an inflow region of the well and using the sensor to measure fluctuations of the temperature of fluids flowing from the formation into the well and the velocity at which said natural fluctuations migrate in downstream direction through the well. The measured temperature variations may be low frequency temperature fluctuations of between 0.1 and 0.5 Degrees Celsius, which gradually die out downstream of the inflow region(s) of the well.